



M163716088  
cc: Mike  
Peter  
Task: 5590

# LISBON VALLEY MINING CO

Paul Baker  
Utah Division of Oil, Gas, & Mining (DOGM)  
1594 West North Temple Suite 1210  
Salt Lake City, UT 84114-5801

August 8, 2013

**RECEIVED**  
**AUG 16 2013**  
DIV. OF OIL, GAS & MINING

Rebecca Doolittle  
Bureau of Land Management BLM  
Moab Field Office (UT060)  
82 East Dogwood, Suite M  
Moab, UT 84532

Re: Proposed Revision - Lisbon Valley Waste Rock Sampling Plan Lisbon Valley Mining Co LLC 920 South County Road 313 La Sal, Utah, 84530, DOGM Permit M/037/088

Dear Paul and Rebecca,

The Lisbon Valley Mining Co LLC (LVMC) respectfully requests approval to revise the Waste Rock Sampling Plan (The Sampling Plan)<sup>1</sup>. Our request is based on the 2012 review of LVMC waste rock sampling and reporting procedures. This review included DOGM staff Tom Munson and Peter Brinton. BLM staff included Rebecca Doolittle. The constructive results of this review are documented in our current 2012 Waste Rock Report.

Up to this time, both blast hole samples and bulk composite samples have been collected in accordance with the Sampling Plan. Moving forward, LVMC requests to collect and analyze bulk composite samples only for the following reasons:

- Blast hole samples can be composites of multiple beds when the (22') borehole spans a lithologic bed boundary. This is a problem when the objective is to characterize individual beds. Blast hole samples and bulk composites are collected from different locations and analyzed by different methods. Blast samples are analyzed for total sulfur

<sup>1</sup> LVMC 2005 Waste Rock Sampling Plan. Lisbon Valley Mining Company LLC. 20 December 2005

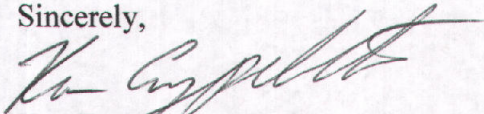


and CaCO<sub>3</sub>. Bulk samples are analyzed by Meteoric Water Mobility Procedure (MWMP). This is an unnecessary variable.

- Blast hole sampling locations cannot be “standardized” as proposed in the Final Environmental Impact Statement.<sup>2</sup> LVMC has attempted to describe blast hole sampling limitations in all of its submittals. Bulk samples can be split for all three (MWMP, sulfur and CaCO<sub>3</sub>) analyses and analyzed at a third party (non-LVMC) laboratory. This is a more efficient use of labor and provides a more comprehensive bed-specific analysis.
  
- Therefore, LVMC requests a sampling modification to collect only bulk composite samples moving forward.

LVMC has prepared a revised Sampling Plan for BLM and DOGM review. Please see Attachment 1. We believe that the revisions we are proposing will both simplify our sampling procedures and provide a higher level of bed specific accuracy for our Acid Based Accounting program.

Sincerely,



Ken Ezpeleta  
Environmental Technician  
Lisbon Valley Mining Co LLC  
435 686 9950 #126  
[Kezpeleta@lisbonmine.com](mailto:Kezpeleta@lisbonmine.com)

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<sup>2</sup> USBLM 1997 Lisbon Valley Copper Project Final Environmental Impact Statement February 1997



**Attachment 1**  
**Waste Rock Sampling Plan**





# **LISBON VALLEY MINING CO**

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## **Waste Rock Sampling Plan**

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Revision 2

Dated: 4/3/2013

### **Background**

As part of its Mitigation and Monitoring Plan, the Lisbon Valley Mining Co (LVMC) is required to characterize, segregate, and encapsulate waste rock with acid generation potential. This requirement is mandated by the Bureau of Land Management (BLM) in accordance with the 1997 Environmental Impact Statement (EIS) and Record of Decision (ROD).<sup>1</sup>

In 1997, Summo USA demonstrated that the bulk of the waste rock generated by the Lisbon Valley Mine will be strongly acid neutralizing. Approximately 10% of the waste is expected to have acid generation potential. As part of its Mitigation and Monitoring Plan, Summo USA developed a Waste Rock Sampling Plan (the 1997 Sampling Plan).<sup>2</sup>

### **Objectives**

This Waste Rock Sampling Plan (the Plan) updates the 1997 Sampling Plan (the 1997 Plan). The primary objective is to identify protocols suitable to characterize, handle, encapsulate, and document the placement of AGP waste rock in waste rock piles. The Plan details the following protocols:

- Waste rock types.
- Waste rock sampling locations.
- Waste rock sampling and analytical protocols.
- Waste dump as-built mapping.
- Pit bench as-built mapping.
- Annual reporting.

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<sup>1</sup> US Bureau of Land Management 1997a. Record of Decision Environmental Impact Statement Lisbon Valley Copper Project. 26 March 1997

<sup>2</sup> US Bureau of Land Management 1997. Final Environmental Impact Statement Lisbon Valley Copper Project. Attachment 2 Geochemical (Waste Rock) Sampling Plan. February 1997



## ***Waste Rock Types***

Seven waste rock types have been identified at the mine. Each rock type is correlated below with bed number and acid/base characteristics.

<b>Rock Type (RT) Designation</b>	<b>Rock Type</b>	<b>Bed Number</b>	<b>Acid/base Characteristic</b>
RT1	Quaternary Alluvium	1	ANP
RT2	Mancos Shale	2	ANP
RT3	Dakota Sandstone	3-5	ANP
RT4	Dakota Sandstone	6-8	AGP
RT5	Dakota Siltstone	9-10	AGP
RT6	Dakota Sandstone	11-13	ANP
RT7	Burro Canyon	14-15	ANP

## ***Waste Rock Sampling Locations***

LVMC will collect waste rock samples of each rock type mined. Those samples will be taken every month from the location being mined at that time. A sampling record will be taken with each sample; including Sample ID, date, time, sampler(s), and coordinates.

The objective here is to provide a high level of bed specific accuracy for our Acid Based Accounting (ABA) program. An accurate bed specific ABA program leads to an accurate AGP waste handling program.

## ***Waste Rock Sampling and Analytical Protocols***

On a quarterly basis LVMC will composite samples of each rock type mined from each pit to determine acid neutralization potential (ANP), acid generation potential (AGP), Net Neutralization Potential (NNP) and the dissolution mobility of metals. Those samples will be shipped to a third party (non-LVMC) laboratory. Each sample will then be split into three independent samples for the three tests MWMP (antimony, arsenic, uranium, cadmium, copper, molybdenum, selenium, and zinc), Total Sulfur and % CaCO<sub>3</sub> (as defined in the ROD).

The LVMC will document the analytical results of waste rock sampling in a database. The database will document the sample location, elevation, sampling date, rock type, and analytical result. The database will identify the samples used for quarterly ABA analysis, and relate the results.



### ***Waste Dump As-Built Mapping***

The waste rock sampling results will be used to ensure that AGP waste rock is placed near the center of waste dumps and encapsulated with ANP waste rock. The LVMC will produce an as-built map of each waste dump documenting the location and extent of each ANP and AGP rock type. Each map will be drafted in layers, with each layer representing 12 months of waste emplacement. The as-built waste dump maps will be included in the annual report.

### ***Pit Bench As-Built Mapping***

The LVMC will plot the location, thickness, and elevation of each AGP and ANP rock type on the as-built pit bench geologic map. The map will be updated quarterly, and merged with the annual report.

### ***Annual Reporting***

The waste rock sampling activities and results will be summarized in an annual report and submitted to the Bureau of Land Management (BLM) and Utah Division of Oil, Gas, and Mining. A copy of the analytical database, as-built waste dump map, and pit bench maps will also be included.

Please call Lantz Indergard at (435) 686-9950 #107 or Ken Ezpeleta at (435) 686-9950 #126 if you have any questions regarding this Plan.



**Attachment 2**  
**MR-REV Form**



## Application to Revise a Notice of Intention to Commence Small Mining Operations or Exploration

<b>Operator:</b> <u>Lisbon Valley Mining Co. LLC</u>			
<b>Mine Name:</b> <u>Lisbon Valley Mine</u>		<b>File Number:</b> <u>E or M/037 1086</u>	
<small>Provide a detailed listing of all changes to the Notice that will be required as a result of this change. Individually list all maps and drawings that are to be added, replaced, or removed from the Notice. Include page, section and drawing numbers as part of the description.</small>			
<b>DETAILED SCHEDULE OF CHANGES TO THE NOTICE</b>			
			Description of map, text, or materials to be changed
ADD	REPLACE	REMOVE	<u>Waste Rock Sampling Plan</u>
ADD	REPLACE	REMOVE	
ADD	REPLACE	REMOVE	
ADD	REPLACE	REMOVE	
ADD	REPLACE	REMOVE	
ADD	REPLACE	REMOVE	
ADD	REPLACE	REMOVE	
ADD	REPLACE	REMOVE	
ADD	REPLACE	REMOVE	
<b>I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments and obligations, herein.</b>			
<u>Ken Espeleta</u> Print Name		<u>Ken Espeleta</u> ENV. Tech Sign Name, Position	
		<u>8/8/2013</u> Date	

**Return to:**

State of Utah  
Division of Oil, Gas and Mining  
Attn: Minerals Regulatory Program  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801  
Phone: (801) 538-5291 Fax: (801) 359-3940

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<b>FOR DOGM USE ONLY:</b>	
File #: <u>M/</u> <u>1</u>	
Approved: _____	
Bond Adjustment: from (\$) <u>                    </u>	
to \$ <u>                    </u>	